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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/712,382

11/14/2003

Aulis Perala

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07/27/2007

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ALEXANDRIA, VA 22320

EXAMINER.

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1723

MAIL DATE

DELIVERY MODE

07/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/712,382

Applicant(s)

PERALA, AULIS

Examiner

Krishnan S. Menon

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-18 and 20-27 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

New Claims 15-27 are pending as amended 1/24/07

Claim Objections

Claim 25 is objected to because of the following informalities: "a cylindrical filtering element" in line 5 seems to be duplication of the newly added limitation.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 15-18 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brushafer et al (US 5,843,542).

Brushafer teaches a filter cloth or filtering module having transverse and longitudinal yarns as seen in figure 1, in which the yarns 14a are larger in diameter than the rest of the yarns, in the ratio as claimed (0.027/0.010: column 5 lines 10-17). The material is heat-shrinkable as claimed – see column 5 lines 38-46. It is also formed in a tubular form, which can be used as a sleeve over tubular items – see column 3 lines 25-34 (Applicant's specification does not limit the "filtering module" to a specific structure, but figure 3 represents a tubular structure,). "Stretched over" is not a limitation in the

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claims; the material of the reference is capable of being stretched over discs or cylinders. The remainder of the claims has functional language and/or intended use limitations as discussed above in paragraph 1.

Regarding the newly added limitation of the shape of the bag as that of a filtering segment, a change in shape is not a patentable invention. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.). One of ordinary skill in the art would use the teaching of Brushafer for the application recited in the claims because of the teaching of the heat-shrink sleeving as taught by Brushafer (column 4, 1-12). Also see KSR v. Teleflex, 82 USPQ 2d 1385 (2007): use of the teaching of Brushafer for the application in the claimed invention would be obvious to one of ordinary skill because the use of filter bags is known in the art and results of using the teaching of Brushafer is predictable.

2. Claims 15-17 and 22-27 are rejected under 35 U.S.C. 103(a) as unpatentable over Fischer (US 5,180,409).

Fischer teaches a filter cloth, a filtering module 9or, bag) and a filtering apparatus – see figures. The filter cloth has the longitudinal and transverse yarn as claimed, with support yarns 14 larger in diameter than the other yarns (larger than the fill yarn diameter by 1.4 or more: examples, claims 12,13). The support yarns form the claimed

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channel structure. The cloth is wound around an element to form the filter apparatus. It is also capable of being "stretched over" a disc or a cylinder. Solid-liquid separation is intended use; the filter of the reference is capable of doing it. In addition, the cloth is described as useful for other purposes such as tubular filter - see column 8 lines 11-15. They can be designed for "a desired separation" – see column 7 lines 4-43.

Regarding the shape of the bag as that of the filtering segment, this is only a mere change in shape – see paragraph 1 above.

With respect to the "drum filter" recited in the preamble, the claim recites a cylindrical filter only, and does not have limitations to a drum filter as known in the art. Therefore, giving the broadest reasonable interpretation to the claims, it reads on the claims 25 and 26.

Claims 24 and 27 differ from the teaching of the reference in having the filtering module comprising heat-shrinkable yarns for stretching over the filtering element by thermal treatment. However, "stretching over ... by thermal treatment" is a process step; the claim is for a finished product – the filtering apparatus. A process step in a product claim is not patentable unless applicant can show novelty/non-obviousness with secondary evidence. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

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Thermal contraction is also described by the applicant as known in the art – see paragraph 4 of the specification. Applicant has not disclosed any specific material or construction that would distinguish the process step of thermal treatment that would warrant the product claim patentable over the prior arts considered. Warming a metallic cloth filter above the ambient temperature before installing over the filter element and then cooling it also would meet the limitation “thermal treatment”.

3. Claims 15-18 and 20-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrichs (US 4,076,627).

Applicant's claims are directed at a disc filter bag, a filtering module, a disc filter and a drum filter. However, applicant admits that disc and drum filters are known in the art; the invention being the filter cloth.

Friedrichs teaches a filter cloth having yarns in the longitudinal and transverse direction, with parallel thicker yarns (1) placed at predetermined intervals as claimed. See the figures of the reference. Thicker yarns form parallel channels as is clearly seen in the figures (figure 5). They are also on the under side because yarns (2) are above them. The thicker yarns are larger than the thinner yarns as claimed – see column 3 lines 15-32.

Thermal contraction is also described by the applicant as known in the art – see paragraph 4 of the specification. Applicant has not disclosed any specific material or construction that would distinguish the process step of thermal treatment that would warrant the product claim patentable over the prior arts considered. Many plastic

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materials are known to be heat shrinkable. Warming a metallic cloth filter above the ambient temperature before installing over the filter element and then cooling it also would meet the limitation "thermal treatment".

The fabric of the reference can be used in filter Applications such as disc and drum filters, and would be obvious to one of ordinary skill in the art, unless applicant can show otherwise.

The shape being that of a filtering segment – not patentable as stated in paragraph 1 above.

Response to Arguments

Applicant's arguments filed 6/28/07 have been fully considered but they are not persuasive. They are addressed in the rejection.

Allowable subject matter extracted from applicant's specification was also suggested in a second examiner-initiated interview by phone on 7/3/07 (summary mailed 7/6/07). However the attorney of record requested an office action because of the delay in obtaining a response from the applicant/inventor on 7/24/07.

Allowable Subject Matter/Interview Summary

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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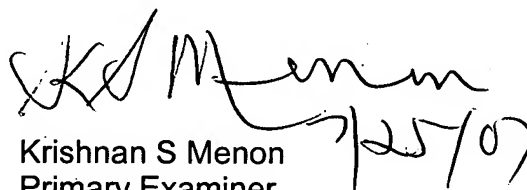
In an Examiner-initiated interview on 2/12/07, this was suggested to the applicant. However, applicant felt that this was overly limiting and declined the offer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Krishnan S Menon
Primary Examiner
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